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=> d que
L2        505403 SEA FILE=REGISTRY ABB=ON  PLU=ON  NCNC3/ES
L3        392874 SEA FILE=REGISTRY ABB=ON  PLU=ON  NC2NC2/ES
L4        882977 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 OR L3
L6        713083 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND ((O/ELS AND S/ELS) OR
                 O>1)
L12       522345 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L6 AND NC=1) NOT (P/ELS OR
                 SI/ELS)
L14       472811 SEA FILE=REGISTRY ABB=ON  PLU=ON  L12 AND NRS<5
L16       197390 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 AND NC2NC2/ES
L19       275421 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 NOT L16
L41               STR
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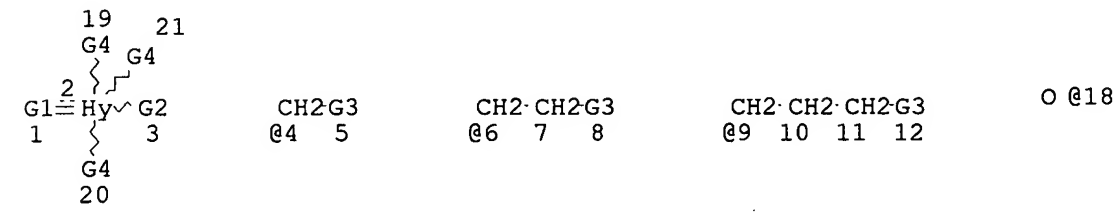


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VAR G1=O/S
VAR G2=4/6/9/13
VAR G3=X/18
VAR G4=H/X/OH/NO2/AK/O/CY/N/S
NODE ATTRIBUTES:
CONNECT IS E1  RC AT  18
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY  UNS  AT   2
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E4 C  E2 N  AT   2

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  21

STEREO ATTRIBUTES: NONE
L43          279 SEA FILE=REGISTRY SUB=L16 SSS FUL L41
L45         1824 SEA FILE=REGISTRY SUB=L19 SSS FUL L41
L46         2103 SEA FILE=REGISTRY ABB=ON  PLU=ON  L43 OR L45
L47         2110 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L46
L48         1615 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L47 NOT PY>1996

=> d ibib abs hitstr 1-20

L48  ANSWER 1 OF 1615  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1997:356424  HCAPLUS
DOCUMENT NUMBER:          126:334395
TITLE:                    Pyrimidinone derivative for treatment of senescence,
                          diabetic- and radiation-induced slow-healing wound
INVENTOR(S):              Izmajlov, Gennadij Alekseevich; Izmajlov, Sergej
                          Gennadievich; Reznik, Vladimir Savvich; Gorbunov,
                          Sergej Mikhajlovich; Zuev, Yurij Alekseevich;
```

Only first 20 References Printed. I can print more if you need them.

| | |
|---|---|
| | Gilmutdinov, Il Garafeevich |
| PATENT ASSIGNEE(S): | Institut Organicheskoj I Fizicheskoj Khimii, Estonia |
| SOURCE: | Russ., 163 pp. From: Izobreteniya 1996, (20), 163. CODEN: RUXXE7 |
| DOCUMENT TYPE: | Patent |
| LANGUAGE: | Russian |
| FAMILY ACC. NUM. COUNT: | 1 |

PATENT INFORMATION:

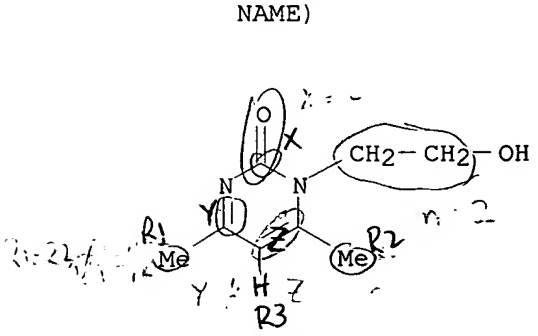
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| RU 2063752 | C1 | 19960720 | RU 1993-29221 | 19930608 |

AB Title only translated.

IT **14716-32-6**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pyrimidinone deriv. for treatment of senescence and slow-healing wounds)

RN 14716-32-6 HCAPLUS

CN 2(1H)-Pyrimidinone, 1-(2-hydroxyethyl)-4,6-dimethyl- (8CI, 9CI) (CA INDEX NAME)




Claim 26:
X = O
Y = C
Z = C=C
R1 = Alkyl (Me)
R2 = Alkyl (Me)
R3 = H

L48 ANSWER 2 OF 1615 HCAPLUS COPYRIGHT 2002 ACS

| | |
|---|---|
| ACCESSION NUMBER: | 1997:211709 HCAPLUS |
| DOCUMENT NUMBER: | 126:251346 |
| TITLE: | Synthesis of some aminonaphthalene and 5-substituted uracil nucleosides derivatives |
| AUTHOR(S): | Sayed Ahmed, A. F.; Milad, A. |
| CORPORATE SOURCE: | Faculty of Science, Zagazig University, Zagazig, Egypt |
| SOURCE: | Egyptian Journal of Pharmaceutical Sciences (1996), 37(1-6), 493-500 CODEN: EJPSBZ; ISSN: 0301-5068 |
| PUBLISHER: | National Information and Documentation Centre |
| DOCUMENT TYPE: | Journal |
| LANGUAGE: | English |

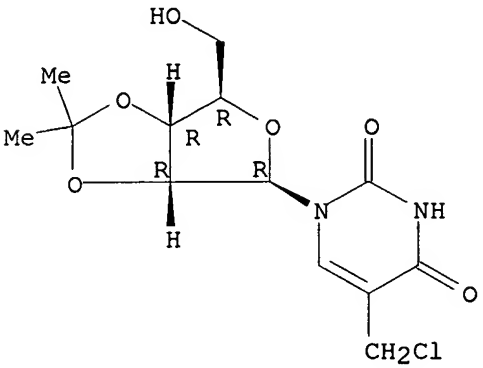
AB Some aminonaphthalene nucleosides were prepd. by the reaction of both of 1-amino, 1-aminomethyl, 1,5-diamino and 2,6-bis(aminomethyl)naphthalene derivs. with 2,3,5-tri-O-acetylribofuranosyl chloride. On the other hand, the reactions of 2',3'-O-isopropylidene-5-aminouridine and its 5-aminomethyl analog with gluconolactone and the reactions of 2',3'-O-isopropylidene-5-chloromethyluridine with sodium N-methyltaurinate have been described.

IT **89148-09-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of aminonaphthalene uracil nucleosides via coupling reaction)

RN 89148-09-4 HCAPLUS

CN Uridine, 5-(chloromethyl)-2',3'-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.




L48 ANSWER 3 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:211491 HCAPLUS
DOCUMENT NUMBER: 126:264305
TITLE: Synthesis of some uridine and cytidine derivatives
AUTHOR(S): Sayed Ahmed, A. F.
CORPORATE SOURCE: Chem. Dep., Zagazig Univ., Zagazig, Egypt
SOURCE: Egyptian Journal of Pharmaceutical Sciences (1996), 37(1-6), 303-311
CODEN: EJPSBZ; ISSN: 0301-5068
PUBLISHER: National Information and Documentation Centre
DOCUMENT TYPE: Journal
LANGUAGE: English

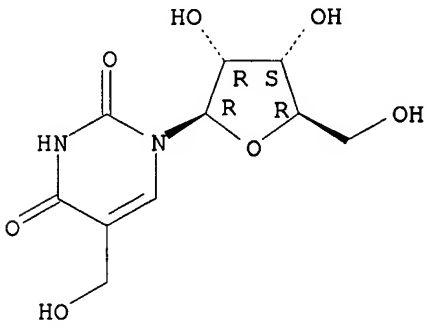
AB Some modified nucleosides were prepd. from 5, 6-disubstituted uridine, 5-substituted cytidine and cytidine. Different nucleophilic substitution reactions were carried out in alk. or neutral medium. Some of these reactions describe ring formation.

IT **30414-00-7**, 5-Hydroxymethyluridine **188842-72-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of uridines and cytidines using nucleophilic substitution)

RN 30414-00-7 HCAPLUS

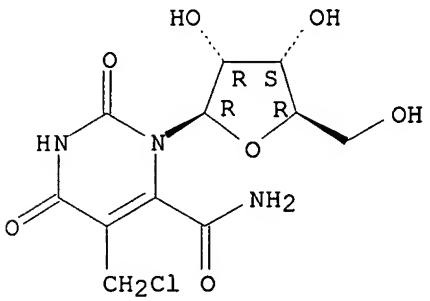
CN Uridine, 5-(hydroxymethyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



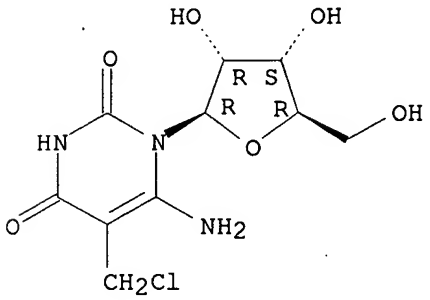
RN 188842-72-0 HCAPLUS
CN Uridine, 6-(aminocarbonyl)-5-(chloromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **188842-61-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of uridines and cytidines using nucleophilic substitution)
RN 188842-61-7 HCAPLUS
CN Uridine, 6-amino-5-(chloromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



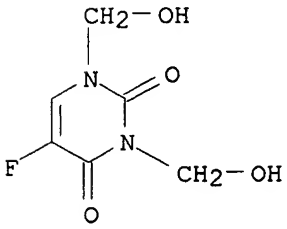
L48 ANSWER 4 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:146915 HCAPLUS
DOCUMENT NUMBER: 126:255385
TITLE: Synthesis and controlled-release of polymer drug using lactic acid-phosphate copolymer as drug carriers
AUTHOR(S): Fang, Chang-Lie; Li, Bing; Liu, Zhen-Hua; Zhuo, Ren-Xi
CORPORATE SOURCE: Dep. Chem., Wuhan Univ., Wuhan, 430072, Peop. Rep. China
SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1996), 17(11), 1788-1791
CODEN: KTHPDM; ISSN: 0251-0790
PUBLISHER: Gaodeng Jiaoyu Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Controlled-release polymer drugs, using 5-FU as model drug, lactic acid-phosphate copolymers as polymer drug carriers, were prepd. The copolymers were characterized by 1H NMR, IR and UV spectroscopy. The contents of 5-FU were detd. by UV spectroscopy. The drug showed controlled-release in vitro and the copolymer compn. [i.e. variations in

DL-lactic acid: TMP ratios] had profound effect on the drug release rate.

IT **74179-14-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and controlled-release of polymer drug using lactic acid-phosphate copolymer as drug carriers)

RN 74179-14-9 HCAPLUS

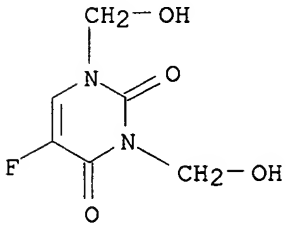
CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro-1,3-bis(hydroxymethyl)- (9CI) (CA INDEX NAME)



IT **74179-14-9DP**, reaction product with chlorinated trimethylene phosphonate and lactide
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and controlled-release of polymer drug using lactic acid-phosphate copolymer as drug carriers)

RN 74179-14-9 HCAPLUS

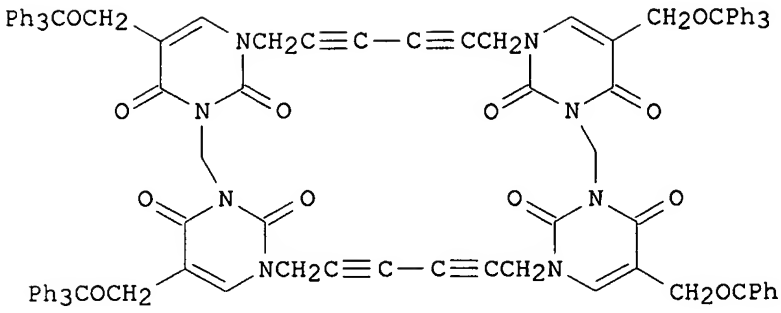
CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro-1,3-bis(hydroxymethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 5 OF 1615 HCAPLUS COPYRIGHT 2002 ACS

| | |
|---|---|
| ACCESSION NUMBER: | 1997:106719 HCAPLUS |
| DOCUMENT NUMBER: | 126:144265 |
| TITLE: | A novel type of rigid macrocycle with bis(3-uracilyl)methane and hexadiyne units The uracilophane |
| AUTHOR(S): | Caplar, Vesna; Tumir, Lidija; Zinic, Mladen |
| CORPORATE SOURCE: | Laboratory of Supramolecular and Nucleoside Chemistry, Department of Chemistry, Ruder Boskovic Institute, Zagreb, 10001, Croatia |
| SOURCE: | Croatica Chemica Acta (1996), 69(4), 1617-1631 CODEN: CCACAA; ISSN: 0011-1643 |
| PUBLISHER: | Croatian Chemical Society |
| DOCUMENT TYPE: | Journal |
| LANGUAGE: | English |

GI



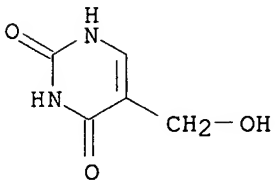
I

AB Synthesis of the uracilophane I, constructed from two bis(3-uracilyl)methane units and two hexadiyne bridges connecting uracil N(1)-atoms, is described. The conformational properties of I investigated by mol. dynamics revealed low energy conformations with partly or fully stacked phenyl-uracil or phenyl-Ph pairs.

IT **4433-40-3**, 5-Hydroxymethyluracil
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and conformation of uracilophane)

RN 4433-40-3 HCAPLUS

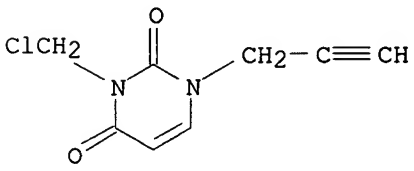
CN 2,4(1H,3H)-Pyrimidinedione, 5-(hydroxymethyl)- (9CI) (CA INDEX NAME)



IT **168413-07-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and conformation of uracilophane)

RN 168413-07-8 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 3-(chloromethyl)-1-(2-propynyl)- (9CI) (CA INDEX NAME)

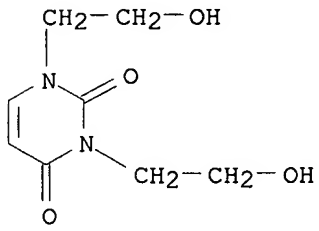


L48 ANSWER 6 OF 1615 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:38586 HCAPLUS
DOCUMENT NUMBER: 126:54871
TITLE: 1,3-Bis(2-hydroxyethyl)uracil showing inotropic activity
INVENTOR(S): Grinevich, Aleksandr Iosifovich; Vojtsekhovskaya, Oksana Mikhajlovna; Chekman, Ivan Sergeevich; Puzenkina, Ninel Nikolaevna; Podgornyj, Andrej Vadimovich; Gorchakova, Nadezhda Aleksandrovna; Nizhenkovskaya, Irina Vladimirovna
PATENT ASSIGNEE(S): Kievskij Meditsinskij Institut Im.Akad.A.A.Bogomoltsa, Ukraine
SOURCE: Russ. From: Izobreteniya 1996, (7), 168. CODEN: RUXXE7
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

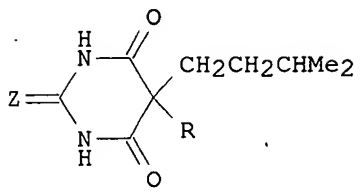
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| RU 2055581 | C1 | 19960310 | RU 1992-5051178 | 19920706 |

PRIORITY APPLN. INFO.: SU 1992-5051178 19920706
AB Title only translated.
IT **711-66-0**, 1,3-Bis(2-hydroxyethyl)uracil
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(1,3-bis(2-hydroxyethyl)uracil as inotropic agent)
RN 711-66-0 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1,3-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 7 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:735413 HCAPLUS
DOCUMENT NUMBER: 126:42200
TITLE: Comparison between the metabolism of branched-chain barbiturates and that of their sulfur-containing analogs
AUTHOR(S): Yebga, A.; Menager, S.; Verite, P.; Combet Farnoux, C.; Lafont, O.
CORPORATE SOURCE: Laboratoire de Pharmacochimie Biopharmacie, Faculte de Medecine et de Pharmacie, Saint Etienne du Rouvray Cedex, 76803, Fr.
SOURCE: Acta Technologiae et Legis Medicamenti (1995), 6(3, Suppl., XXI Congresso Internazionale della Societa

Farmaceutica del Mediterraneo Latino, 1994), 536-539
CODEN: ATLMEQ; ISSN: 1121-2098
PUBLISHER: Maccari
DOCUMENT TYPE: Journal
LANGUAGE: French
GI

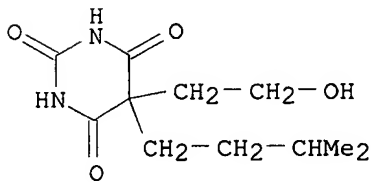


I

AB Four barbiturates or thiobarbiturates (I; Z = O or S; R = Et or Pr) were given orally to rats at 20 mg/kg/day for 8-10 days, and the urines were analyzed for metabolites by [1H]NMR spectrometry, mass spectrometry, and gas chromatog. The greater lipophilicity of the thiobarbiturates than of the barbiturates did not cause an increase in the amt. of drug metabolized. The .beta.-oxidn. of the Et chain of amobarbital (I; Z = O; R = Et), which is the 1st step in the opening of the pyrimidinetrione ring by intramol. alcoholysis, did not take place in the case of the S-contg. analog. Desulfuration was not the principal metabolic pathway of the thiobarbiturates. With the barbiturates, there was no carboxylated metabolite formed by the .omega.-oxidn. of the side chains, contrary to what has been described for the thiobarbiturates.

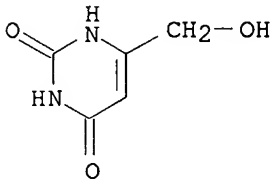
IT **68160-58-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(metab. of barbiturates and thiobarbiturates resulting in formation of)

RN 68160-58-7 HCAPLUS
CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-(2-hydroxyethyl)-5-(3-methylbutyl)-(9CI) (CA INDEX NAME)

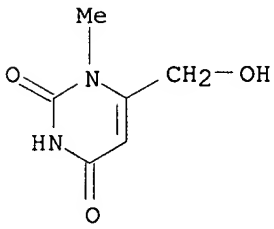


L48 ANSWER 8 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:733960 HCAPLUS
DOCUMENT NUMBER: 126:103814
TITLE: Hydrogen-bonded complexes of diaminopyridines and diaminotriazines: opposite effect of acylation on complex stabilities. [Erratum to document cited in CA125:194913]

AUTHOR(S): Beijer, Felix H.; Sijbesma, Rint P.; Vekemans, Jef. A. J. M.; Meijer, E. W.; Kooijman, Huub; Spek, Anthony L.
CORPORATE SOURCE: Department of Organic Chemistry, Eindhoven University of Technology, Eindhoven, 5600 MB, Neth.
SOURCE: Journal of Organic Chemistry (1996), 61(26), 9636
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors make corrections to pages 6374-6378.
IT **22126-44-9**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(opposite effect of acylation on stabilities of hydrogen-bonded complexes of diaminopyridines and diaminotriazines (Erratum))
RN 22126-44-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 6-(hydroxymethyl)- (9CI) (CA INDEX NAME)



IT **2476-13-3P**
RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); PROC (Process)
(opposite effect of acylation on stabilities of hydrogen-bonded complexes of diaminopyridines and diaminotriazines (Erratum))
RN 2476-13-3 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 6-(hydroxymethyl)-1-methyl- (9CI) (CA INDEX NAME)



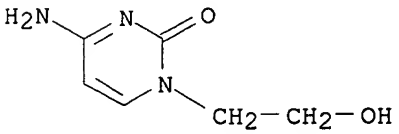
L48 ANSWER 9 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:733958 HCAPLUS
DOCUMENT NUMBER: 126:131724
TITLE: Synthesis of L-Dioxolane Nucleosides and Related Chemistry. [Erratum to document cited in CA122:188012]
AUTHOR(S): Liang, Chengyi; Lee, Doo Won; Newton, M. Gary; Chu, Chung K.
CORPORATE SOURCE: Department of Medicinal Chemistry, College of Pharmacy, Athens, GA, 30602, USA

SOURCE: Journal of Organic Chemistry (1996), 61(26), 9634
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

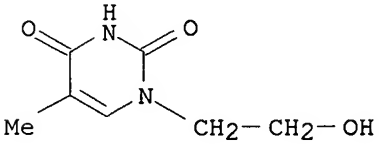
AB Scheme 2 is cor. The corresponding index entries have been cor. accordingly.

IT **22441-50-5P 22441-51-6P 53540-73-1P 55343-20-9P 161469-40-5P 161469-41-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and rearrangement and ring cleavage of dioxolane nucleosides (Erratum))

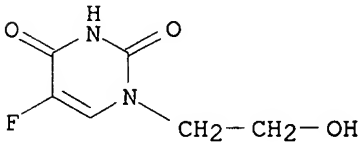
RN 22441-50-5 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



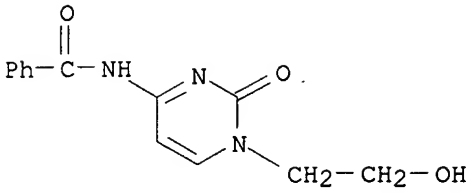
RN 22441-51-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2-hydroxyethyl)-5-methyl- (9CI) (CA INDEX NAME)



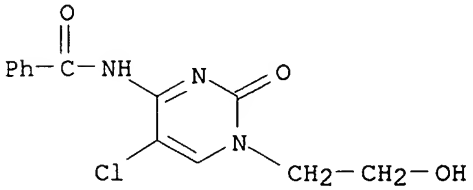
RN 53540-73-1 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



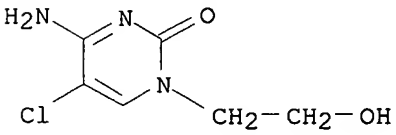
RN 55343-20-9 HCAPLUS
CN Benzamide, N-[1,2-dihydro-1-(2-hydroxyethyl)-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 161469-40-5 HCAPLUS
CN Benzamide, N-[5-chloro-1,2-dihydro-1-(2-hydroxyethyl)-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 161469-41-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-5-chloro-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



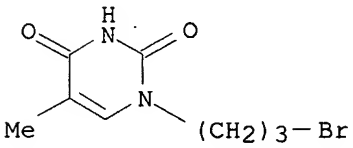
L48 ANSWER 10 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:730649 HCAPLUS
DOCUMENT NUMBER: 126:74661
TITLE: Metallocene-nucleobase conjugates. Synthesis, structure and nucleic acid binding
AUTHOR(S): Price, Clayton; Aslanoglu, Mehmet; Isaac, Christian J.; Elsegood, Mark R. J.; Clegg, William; Horrocks, Benjamin R.; Houlton, Andrew
CORPORATE SOURCE: Department Chemistry, University Newcastle upon Tyne, Newcastle upon Tyne, NE1 7RU, UK
SOURCE: Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1996), (21), 4115-4120
CODEN: JCDTBI; ISSN: 0300-9246
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The ferrocenylnucleobase conjugates [cyclic] [Fe(.eta.5-C5H5){.eta.5-C5H4CH2NMe2CH2CH2CH2NC(O)NHC(O)CMeCH}][BF4] 1 and [Fe(.eta.5-C5H5){.eta.5-C5H4CH2[C5H2N4(NH2)]}] 2 of thymine and adenine resp., have been prepd. and their crystal and mol. structures detd. The mol. packing of the two compds. differs markedly in terms of intermol. hydrogen-bonding

interactions. In 1 such interactions are confined to discrete cation.cntdot..cntdot..cntdot.anion.cntdot..cntdot..cntdot.solvate units, whereas in 2 the hydrogen-bonding patterns are extensive and involve both the Watson-Crick and Hoogsteen donor and acceptor sites. Electrochem. studies of the interaction of 1 with nucleic acids showed that the incorporation of this single nucleoside base with the metallocene moiety enhances the binding in aq. soln. compared to a cationically charged deriv. devoid of this functionality. Moreover, with immobilized nucleic acid, binding was obsd. exclusively for the conjugate 1.

IT **22919-50-2**, 1-(3-Bromopropyl)thymine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with N,N-dimethylaminomethylferrocene)

RN 22919-50-2 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-bromopropyl)-5-methyl- (9CI) (CA INDEX NAME)



L48 ANSWER 11 OF 1615 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:724551 HCAPLUS

DOCUMENT NUMBER: 126:47024

TITLE: Oxidation of 1,3-dimethylthymine with oxone catalyzed by 5,10,15,20-tetrakis(4N-methylpyridiniumyl)porphyrinatomanganese(III) pentaacetate

AUTHOR(S): Chauhan, S. M. S.; Gupta, Mamta; Gulati, A.; Nizar, P. N. H.

CORPORATE SOURCE: Dep. Chem., Univ. Delhi, Delhi, 110 007, India

SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1996), 35B(12), 1267-1270
CODEN: IJSBDB; ISSN: 0376-4699

PUBLISHER: Publications & Information Directorate, CSIR

DOCUMENT TYPE: Journal

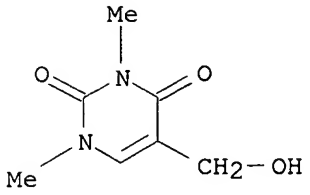
LANGUAGE: English

AB The title reaction in phosphate buffer gives 1,3-dimethyl-5-hydroxymethyluracil (I), 1,3-dimethyl-5-formyluracil (II), 1,3-dimethyluracil-5-carboxylic acid (III), cis-1,3-dimethylthymine-5,6-glycol (IV), and 1,3,5-trimethyl-5-hydroxybarbituric acid (V) in different yields depending on the pH of the reaction medium. Oxidn. of the 5-Me group of 1,3-dimethylthymine to I, II, and III may be explained by a hydrogen abstraction and recombination mechanism, whereas oxidn. of 5,6-double bond to IV and V may be explained either by electron transfer followed by oxygen atom transfer or by the involvement of hydroxy radicals.

IT **14181-46-5P**, 1,3-Dimethyl-5-hydroxymethyluracil
RL: SPN (Synthetic preparation); PREP (Preparation)
(oxidn. of dimethylthymine with pyridiniumylporpyrinatomanganese catalyst)

RN 14181-46-5 HCAPLUS

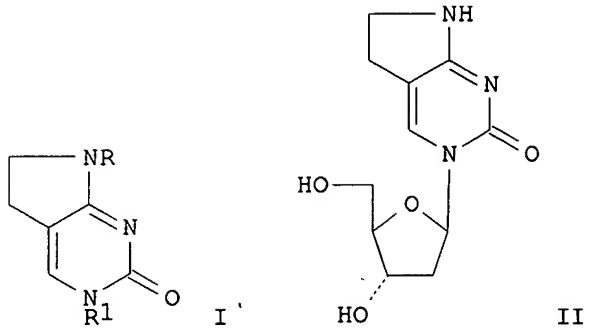
CN 2,4(1H,3H)-Pyrimidinedione, 5-(hydroxymethyl)-1,3-dimethyl- (9CI) (CA INDEX NAME)



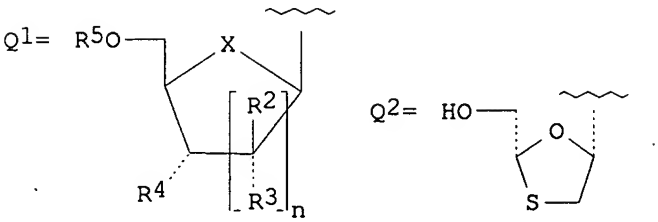

L48 ANSWER 12 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:685314 HCAPLUS
DOCUMENT NUMBER: 125:329288
TITLE: Preparation of ansacytidine and ansacytosine derivatives as drugs.
INVENTOR(S): Vorbrueggen, Helmut; Krolikiewicz, Konrad; Schirner, Michael; Schneider, Martin; Wiesinger, Herbert
PATENT ASSIGNEE(S): Schering A.-G., Germany
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 19514523 | A1 | 19961017 | DE 1995-19514523 | 19950412 |
| WO 9632403 | A2 | 19961017 | WO 1996-EP1595 | 19960412 |
| WO 9632403 | A3 | 19961128 | | |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 9654000 | A1 | 19961030 | AU 1996-54000 | 19960412 |

PRIORITY APPLN. INFO.: DE 1995-19514523 19950412
WO 1996-EP1595 19960412
OTHER SOURCE(S): MARPAT 125:329288
GI



I II



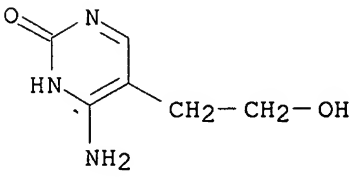


AB Title compds. [I; R = H, CHO, COR6; R6 = alkyl, Ph, CO2R7; R7 = alkyl, PhCH2; R1 = H, Q1, Q2, CH2CH2OCH2CH2OH, CH2CH(CH2OH)2, CH2CH2CH(CH2OH)OCH2PO(OH)2; n = 1, 2; X = O, S, CH2, imino; R2 = H, F, Me, CN; R3 = H, F, OH, OMe; R4 = H, F, OH, N3, NH2; R5 = H, PO(OH)2; R2R3 = CH2; R3R4 = bond], were prepd. as anticancer and antiviral agents (no data). Thus, 7-acetyl-3,5,6,7-tetrahydro-2h-pyrrolo[2,3-d]pyrimidin-2-one (prepn. given) was refluxed with Me3SiCl and (Me3Si)2NH in MeCN to give the corresponding silyl enol ether deriv., which in ClCH2CH2Cl was treated with 3,5-Di-O-toluoyl-2-desoxy-.alpha.-D-ribofuranosyl chloride and trimethylsilyl triflate to give a mixt. of .alpha.- and .beta.-coupling products. The .beta.-anomer was deprotected with NH3 in MeOH to give title compd. (II). II is said to be esp. suitable for formation of stable triplex DNA.

IT **89711-99-9**
RL: RCT (Reactant)
(prepn. of ansacytidine and ansacytosine derivs. as drugs)

RN 89711-99-9 HCAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-5-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 13 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:657130 HCAPLUS
DOCUMENT NUMBER: 126:8490
TITLE: Photosensitized Oxidation of 5-Methyl-2'-deoxycytidine

by 2-Methyl-1,4-naphthoquinone: Characterization of 5-(Hydroperoxymethyl)-2'-deoxycytidine and Stable Methyl Group Oxidation Products

AUTHOR(S): Bienvenu, Carine; Wagner, J. Richard; Cadet, Jean
CORPORATE SOURCE: Departement de Recherche Fondamentale sur la Matiere Condensee, CEA-Grenoble, Grenoble, F-38054, Fr.

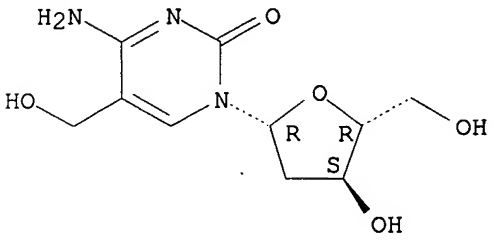
SOURCE: Journal of the American Chemical Society (1996), 118(46), 11406-11411
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 126:8490

AB UV-A irradn. of an aerated aq. soln. of 5-methyl-2'-deoxycytidine in the presence of menadione (MQ) as a type I photosensitizer leads to the formation of several stable oxidn. products. Emphasis was placed in this study on the isolation and the characterization of the major class of decompn. products whose formation involves the oxidn. of the Me group. These include 5-(hydroperoxymethyl)-2'-deoxycytidine and two stable decompn. products namely, 5-(hydroxymethyl)-2'-deoxycytidine and 5-formyl-2'-deoxycytidine. Structural assignment of the latter modified nucleosides was inferred from extensive spectroscopic measurements (1H and 13C NMR, UV spectroscopy, and mass spectrometry). In addn., conformational anal. of the oxidized nucleosides was inferred from detailed 1H NMR anal. All of the above photooxidn. products appear to arise from the deprotonation of the 5-methyl-2'-deoxycytidine radical cation which is generated by menadione photosensitization.

IT **7226-77-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(photosensitized oxidn. of methyldeoxycytidine by methylnaphthoquinone and characterization of hydroperoxymethyldeoxycytidine and stable Me group oxidn. products)

RN 7226-77-9 HCAPLUS
CN Cytidine, 2'-deoxy-5-(hydroxymethyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



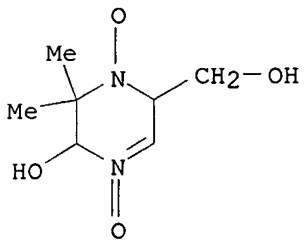

L48 ANSWER 14 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:616114 HCAPLUS
DOCUMENT NUMBER: 125:275154
TITLE: Derivatives of Dihydropyrazine-1,4-Dioxide, 3-Imidazoline 3-Oxide, and .alpha.-Phenyl Nitrones with Functional Groups as New Spin Traps in Solution and in the Gas Phase

AUTHOR(S): Dultseva, Galina G.; Skubnevskaya, Galina I.; Tikhonov, Aleksei Ya.; Mazhukin, Dmitrii G.; Volodarsky, Leonid B.
CORPORATE SOURCE: Institute of Chemical Kinetics and Combustion, Novosibirsk, 630090, Russia
SOURCE: J. Phys. Chem. (1996), 100(44), 17523-17527
CODEN: JPCHAX; ISSN: 0022-3654
DOCUMENT TYPE: Journal
LANGUAGE: English

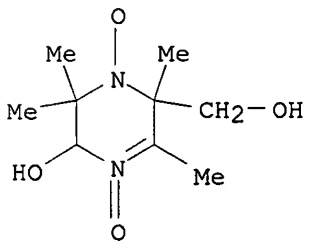
AB The title compds., acyclic Ph nitrones with functional groups, cyclic dinitrones with conjugated or isolated double bonds, and imidazoline nitrones are studied as spin traps (ST) for short-lived free radicals (R) generated photochem. in soln. and in the gas phase. New STs are efficient in trapping OH, hydroxyalkyl, or HO2 radicals. EPR spectra of the spin adducts (SA) of studied dinitrones are triplets of doublets characteristic of the nitroxides with one radical center. Imidazoline ST with amino nitrogen exhibits pH-dependent hyperfine splittings of its SAs. Some spin traps were shown to be efficient in detecting R in the atm. expts.

IT **123194-14-9 123194-16-1 123194-18-3**
**182323-02-0 182323-05-3**
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(spin traps for short-lived free radicals generated photochem. in soln. and in the gas phase)

RN 123194-14-9 HCAPLUS
CN 1(2H)-Pyrazinyloxy, 3,6-dihydro-3-hydroxy-6-(hydroxymethyl)-2,2-dimethyl-, 4-oxide (9CI) (CA INDEX NAME)

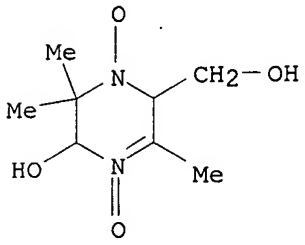



RN 123194-16-1 HCAPLUS
CN 1(2H)-Pyrazinyloxy, 3,6-dihydro-3-hydroxy-6-(hydroxymethyl)-2,2,5,6-tetramethyl-, 4-oxide (9CI) (CA INDEX NAME)

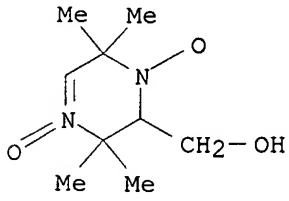



RN 123194-18-3 HCAPLUS

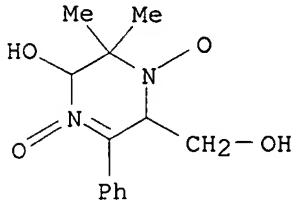
CN 1(2H)-Pyrazinyloxy, 3,6-dihydro-3-hydroxy-6-(hydroxymethyl)-2,2,5-trimethyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 182323-02-0 HCAPLUS
CN 1(2H)-Pyrazinyloxy, 5,6-dihydro-6-(hydroxymethyl)-2,2,5,5-tetramethyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 182323-05-3 HCAPLUS
CN 1(2H)-Pyrazinyloxy, 3,6-dihydro-3-hydroxy-6-(hydroxymethyl)-2,2-dimethyl-5-phenyl-, 4-oxide (9CI) (CA INDEX NAME)



L48 ANSWER 15 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:613912 HCAPLUS
DOCUMENT NUMBER: 125:301481
TITLE: Synthesis of some aminonaphthalene and 5-substituted uracil nucleosides derivatives
AUTHOR(S): Ahmed, A. F. Sayed; Milad, A.
CORPORATE SOURCE: Faculty Science, Zagazig University, Zagazig, Egypt
SOURCE: Chim. Acta Turc. (1996), 24(2), 101-104
CODEN: CATUA9; ISSN: 0379-5896
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Some amino naphthalene nucleosides were prepd. by the reaction of both of 1-amino, 1-aminomethyl, 1,5-diamino and 2,6-bis (aminomethyl) naphthalene

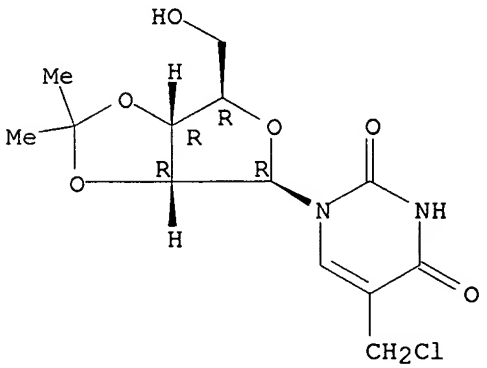
derivs. with 2, 3, 5-tri-O-acetyl ribofuranosyl chloride. On the other hand, the reactions of 2',3'-O-isopropylidene-5-aminouridine and its 5-aminomethyl analog with gluconolactone and the reactions of 2',3'-O-isopropylidene-5-chloromethyl uridine with sodium N-Me taurinate have been described.

IT **89148-09-4**
RL: RCT (Reactant)
(prepn. of amino naphthalene nucleosides)

RN 89148-09-4 HCAPLUS

CN Uridine, 5-(chloromethyl)-2',3'-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.




L48 ANSWER 16 OF 1615 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:611068 HCAPLUS

DOCUMENT NUMBER: 125:294828

TITLE: Urinary excretion of 5-hydroxymethyluracil as indicator of oxidative DNA damage and repair

AUTHOR(S): Bianchini, F.; Cadet, J.

CORPORATE SOURCE: Departement de la Recherche Fondamentale sur la Matiere Condensee, CEA/Grenoble, Grenoble, 38054/9, Fr.

SOURCE: Spec. Publ. - R. Soc. Chem. (1996), 181(Natural Antioxidants and Food Quality in Atherosclerosis and Cancer Prevention), 73-77
CODEN: SROCDO; ISSN: 0260-6291

DOCUMENT TYPE: Journal

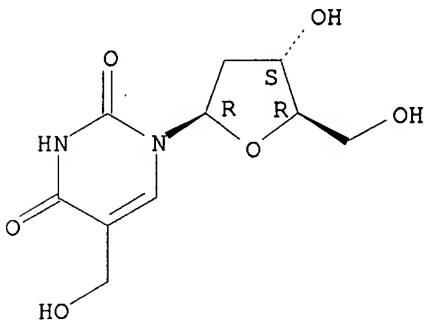
LANGUAGE: English

AB A method was developed for the detn. of 5-hydroxymethyluracil (5-HMUra) and the corresponding nucleoside 5-HMdUrd, and application to human samples is presented. The method is based on HPLC prepurifn. of urine and gas chromatog./mass spectrometry anal. of the modified nucleobase or nucleoside. Only 1 mL urine is needed for anal., and the exptl. variability is extremely low. Also, the level of urinary 5-HMUra seems to be different between individuals, while it is sufficiently stable with time for the same individual.

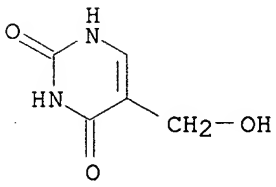
IT **5116-24-5,** 5-Hydroxymethyl-2'-deoxyuridine
RL: ANT (Analyte); ANST (Analytical study)
(urinary excretion of 5-hydroxymethyluracil as indicator of oxidative DNA damage and repair)

RN 5116-24-5 HCAPLUS
CN Thymidine, .alpha.-hydroxy- (9CI) (CA INDEX NAME)

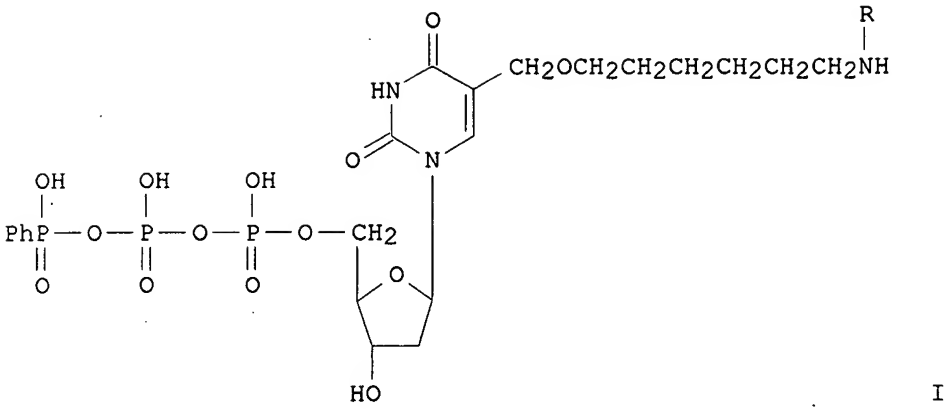
Absolute stereochemistry.




IT **4433-40-3**, 5-Hydroxymethyluracil
RL: ANT (Analyte); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(urinary excretion of 5-hydroxymethyluracil as indicator of oxidative DNA damage and repair)
RN 4433-40-3 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-(hydroxymethyl)- (9CI) (CA INDEX NAME)




L48 ANSWER 17 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:600923 HCAPLUS
DOCUMENT NUMBER: 125:329243
TITLE: Nucleoside 5'-triphosphates modified at both nucleic base and triphosphate moiety
AUTHOR(S): Alexandrova, L. A.; Scoblov, A. Yu.
CORPORATE SOURCE: Engelhardt Institute Molecular Biology, Russian Academy Sciences, Moscow, 117984, Russia
SOURCE: Collect. Czech. Chem. Commun. (1996), 61(Spec. Issue), S156-S157
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

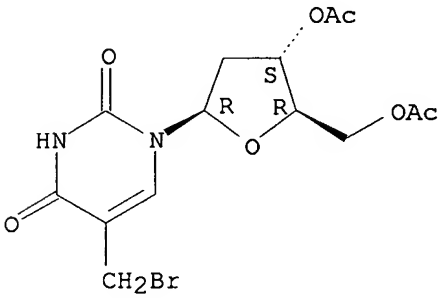
AB Nucleoside 5'-triphosphates modified at the triphosphate moiety and contg. reporter groups at the C5 position of 2'-deoxyuridine were synthesized. The target compds. were the UTP derivs. I (R = reporter group). The structure of these compds. was confirmed by NMR and mass spectroscopy.

IT **58589-18-7**, 5-(Bromomethyl)-2'-deoxy-3',5'-di-O-acetyluridine
RL: RCT (Reactant)
(prepn. of 5,5'-modified uridine triphosphates)

RN 58589-18-7 HCAPLUS

CN Thymidine, .alpha.-bromo-, 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L48 ANSWER 18 OF 1615 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:600893 HCAPLUS

DOCUMENT NUMBER: 125:300682

TITLE: New application of the Stille coupling in the synthesis of 5-substituted uracils

AUTHOR(S): Wagner, Roman; Dvorak, Dalimil; Holy, Antonin

CORPORATE SOURCE: Institute Organic Chemistry Biochemistry, Academy Sciences Czech Republic, Prague, 166 10, Czech Rep.

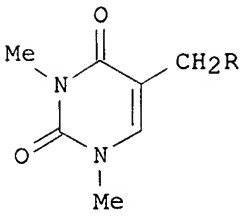
SOURCE: Collect. Czech. Chem. Commun. (1996), 61(Spec. Issue), S118-S119
CODEN: CCCCAK; ISSN: 0010-0765

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:300682

GI



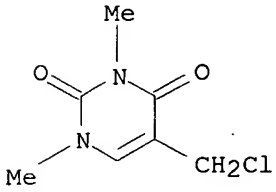
I

AB Stille coupling of 5-chloromethyl-1,3-dimethyluracil and the appropriate tributyltin deriv. in the presence of Pd2dba3 and Ph3As gave the title compds. I (R = vinyl, ethynyl, Ph) in satisfactory yields.

IT **32079-06-4**
RL: RCT (Reactant)
(prepn. of 5-substituted uracils via the Stille coupling)

RN 32079-06-4 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 5-(chloromethyl)-1,3-dimethyl- (9CI) (CA INDEX NAME)



L48 ANSWER 19 OF 1615 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:592044 HCAPLUS

DOCUMENT NUMBER: 125:275817

TITLE: Aggregates of calix[4]arenes based on the 2,6-diaminotriazine.cntdot.imide system

AUTHOR(S): Vreekamp, Remko H.; Verboom, Willem; Reinhoudt, David N.

CORPORATE SOURCE: Laboratory of Organic Chemistry, University of Twente, Enschede, Neth.

SOURCE: Recl. Trav. Chim. Pays-Bas (1996), 115(7/8), 363-370
CODEN: RTCPA3; ISSN: 0165-0513

DOCUMENT TYPE: Journal

LANGUAGE: English

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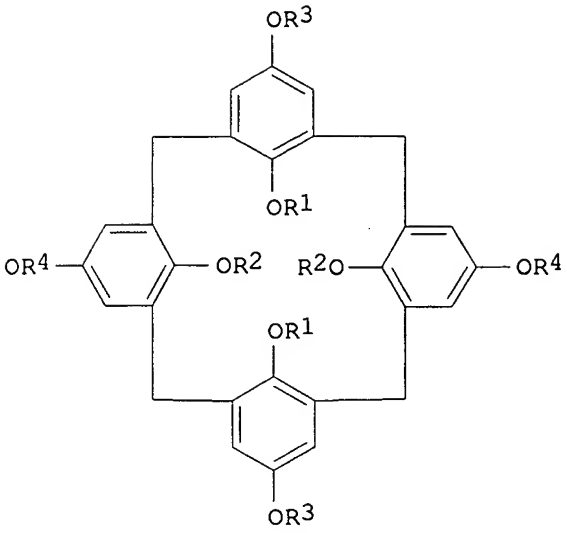

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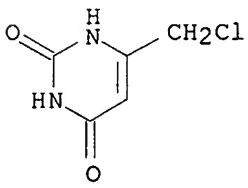
AB The synthesis of several calix[4]arenes functionalized with uracil or diaminotriazine moieties is described. The assocn. between these complimentary calix[4]arenes is strongly influenced by processes related to the position and directionality of the hydrogen-bound moieties. In the case of bis(uracil)calix[4]arene I [R1 = H, R2 = (2,4(1H,3H)-dioxopyrimidine-6-yl)methyl, R3 = R4 = hexyl], self-assocn. is obsd. (K = 3.4 .times. 103 M-1 in CDCl3). In the case of bis(diamidotriazine)calix[4]arene I [R1 = R2 = Pr, R3 = 4-(hexanoylamino)-6-amino-1,3,5-triazin-2-yl, R4 = H], it was concluded from 1H-NMR studies that intermol. assocn. is hampered by the formation of intramol. hydrogen bonds. Due to the divergent orientation of the hydrogen-bonding groups of bis(diaminotriazine)calix[4]arene I (R1 = R2 = Pr R3 = 4,6-diamino-1,3,5-triazin-2-yl, R4 = H), it forms hydrogen-bonded strands through interaction with 5-ethyl-5-phenylbarbituric acid, resulting in the formation of a gel in chloroform.

IT **18592-13-7**, 6-(Chloromethyl)uracil
RL: RCT (Reactant)
(aggregates of calix[4]arenes based on the diaminotriazine-imide system)

RN 18592-13-7 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 6-(chloromethyl)- (9CI) (CA INDEX NAME)



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L48 ANSWER 20 OF 1615 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:577707 HCAPLUS

DOCUMENT NUMBER: 125:214607
TITLE: Base modification and strand breakage in isolated calf hymus DNA and in DNA from human skin epidermal keratinocytes exposed to peroxynitrite or 3-morpholinosydnonimine
AUTHOR(S): Spencer, Jeremy P. E.; Wong, Jon; Jenner, Andrew; Aruoma, Okezie I.; Cross, Caroll E.; Halliwell, Barry
CORPORATE SOURCE: Neurodegenerative Disease Research Centre, University of London King's College, London, SW3 6LX, UK
SOURCE: Chemical Research in Toxicology (1996), 9(7), 1152-1158
CODEN: CRTOEC; ISSN: 0893-228X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Exposure of isolated calf thymus DNA and human skin epidermal keratinocytes to peroxynitrite or the peroxynitrite generator, 3-morpholinosydnonimine (SKIN-1), led to extensive DNA base modification. Large increases in xanthine and hypoxanthine, possible deamination products of guanine and adenine, resp., and in 8-nitroguanine were obsd., but only small changes in some oxidized base products were seen. This pattern of damage suggests that hydroxyl radicals were not major contributors to base modification caused by peroxynitrite, as OH.bul. is known to cause multiple oxidative modifications to all four DNA bases. Instead, it seems that reactive nitrogen species play a much greater role in the mechanism of base damage, producing both nitration and deamination of purine bases when DNA or whole cells are exposed to peroxynitrite. If this pattern of damage is unique to peroxynitrite, it might act as a marker of cellular damage by this species in vivo.

IT **4433-40-3**, 5-Hydroxymethyluracil
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(base modification and strand breakage in thymus DNA and in DNA from human skin epidermal keratinocytes exposed to peroxynitrite or 3-morpholinosydnonimine)

RN 4433-40-3 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-(hydroxymethyl)- (9CI) (CA INDEX NAME)